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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,595	07/29/2003	Yuichi Yagawa	16869B-064300US	1653
20350	7590	07/27/2006	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			DWIVEDI, MAHESH H	
		ART UNIT	PAPER NUMBER	
			2168	

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/630,595	YAGAWA, YUICHI
	Examiner	Art Unit
	Mahesh H. Dwivedi	2168

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 June 2006.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-14 and 16-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-14, and 16-43 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 July 2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>06/29/2006</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 06/29/2006 has been received, entered into the record, and considered. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Response to Amendment

2. Receipt of Applicant's Amendment, filed on 06/29/2006, is acknowledged. The amendment includes the cancellation of claim 15, amending claims 1, 14, 17, 28, 30, 31, 33, and 41-42, and amending the specification.

Specification

3. The objections raised in the office action mailed on 03/27/2006 have been overcome by the applicant's amendments received on 06/29/2006.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-8, 16-21, 23-33, and 37-42 are rejected under 35 U.S.C. 102(b) as being anticipated by **Eldreth** (U.S. Patent 6,292,800).

6. Regarding claim 1, **Eldreth** teaches a system comprising:

- A) a database system (Eldreth, Column 2, lines 14-28, Figure 1);
- B) an application system for providing queries to a database system, the database system coupled to the application system via a first connection over a network (Eldreth, Column 1, lines 32-38, Figure 2);
- C) a storage system coupled to each of the application system and the database system, the storage system including a shared volume that can be accessed by the application system via a path between the storage system and the application system and by the database system via a path between the storage system and the database system, the shared volume storing results from queries made to the database system; and (Eldreth, Column 3, lines 7-15, Figure 2); and
- D) a return path selector coupled to the database system for selecting a return path over which to return the results from queries made to the database system, the return path selector selecting from among at least the first connection over the network or the path between the application system and the storage system without going through the first connection over the network (Eldreth, Column 3, lines 25-37, Figures 2-3).

The examiner notes that **Eldreth** teaches “**a database system**” as “host system 110 may include multiple computers 111-113 and database systems 114-115” (Column 2, lines 16-18). The examiner further notes that **Eldreth** teaches “**an application system for providing queries to a database system, the database system coupled to the application system via a first connection over a network**” as “Communicating with the database system may include sending a database query and

receiving a reply to the query" (Column 1, lines 32-34). The examiner further notes that Figure 2 of **Eldreth** clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Regarding claim 2, **Eldreth** further teaches a system comprising:

A) a request path selector coupled to the application system for selecting a request path over which to send query data for requests made to the database system, the request path selector selecting from among at least the first connection or the storage system (Column 3, lines 25-37, Figures 2-3).

The examiner notes that **Eldreth** teaches "**a request path selector coupled to the application system for selecting a request path over which to send query data for requests made to the database system, the request path selector selecting from among at least the first connection or the storage system**" as "ADB switcher 211 can, in turn process a data request from an application server, select a destination database system 231-232 based on that data request processing, send a database query to, and receive a query reply from, the selected database system, format a data response based on the query reply, and return the data response to the application server 201" (Column 3, lines 30-37).

Regarding claim 3, **Eldreth** further teaches a system comprising:

A) wherein the storage system is coupled to each of the application system and the database system using a switch (Column 3, lines 25-37, Figures 2-3).

The examiner notes that **Eldreth** teaches “**wherein the storage system is coupled to each of the application system and the database system using a switch**” as “ADB switcher 211 can, in turn process a data request from an application server, select a destination database system 231-232 based on that data request processing, send a database query to, and receive a query reply from, the selected database system, format a data response based on the query reply, and return the data response to the application server 201” (Column 3, lines 30-37).

Regarding claim 4, **Eldreth** further teaches a system comprising:

A) wherein a database hub system is used to couple the application system and the database system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 5, **Eldreth** further teaches a system comprising:

A) wherein the results from the query have a size, and the return path selector chooses a return path based on the size of the results (Column 3, lines 7-15).

Regarding claim 6, **Eldreth** further teaches a system comprising:

A) wherein the return path selector chooses a return path based on a prediction of the size of the results (Column 3, lines 7-15).

Regarding claim 7, **Eldreth** further teaches a system comprising:

- A) wherein the return path selector chooses a return path based on a measurement of throughput of the first connection (Column 3, lines 7-15).

Regarding claim 8, **Eldreth** further teaches a system comprising:

- A) wherein when the return path is chosen to be the storage system, the results are sent to the storage system as a file and an address in the storage system for the file is provided to the application system using the first connection (Column 7, lines 9-16).

Regarding claim 16, **Eldreth** further teaches a system comprising:

- A) wherein the database includes a hub system for system coupled to each of the application system and the database system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 17, **Eldreth** teaches a system comprising:

- A) a database system (Eldreth, Column 2, lines 14-28, Figure 1);
- B) an application system for providing queries to the database system coupled to the application system via a first connection over a network (Eldreth, Column 1, lines 32-38);
- C) a storage system coupled to each of the application system and the database system, the storage system including a volume that can be accessed by the application system via a path between the storage system and the application system and by the

database system via a path between the storage system and the database system

(Eldreth, Column 3, lines 7-15, Figure 2); and

D) a request path selector coupled to the application system for selecting a request path over which to send query data for requests made to the database system, the request path selector selecting from among at least the first connection over the network or the path between the application system and the storage system (Eldreth, Column 3, lines 25-37, Figures 2-3).

The examiner notes that **Eldreth** teaches “**a database system**” as “host system 110 may include multiple computers 111-113 and database systems 114-115” (Column 2, lines 16-18). The examiner further notes that **Eldreth** teaches “**an application system for providing queries to the database system coupled to the application system via a first connection over a network**” as “Communicating with the database system may include sending a database query and receiving a reply to the query” (Column 1, lines 32-34). The examiner further notes that Figure 2 of **Eldreth** clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Regarding claim 18, **Eldreth** further teaches a system comprising:

A) wherein the storage system is coupled to each of the application system and the database system using a switch (Column 3, lines 25-37, Figures 2-3).

Regarding claim 19, **Eldreth** further teaches a system comprising:

A) wherein a database hub system is used to couple the application system and the database system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 20, **Eldreth** further teaches a system comprising:

A) wherein the query data have a size, and the request path selector chooses a request path based on the size of the query data (Column 3, lines 7-15).

Regarding claim 21, **Eldreth** further teaches a system comprising:

A) wherein when the request path is chosen to be the storage system, the query data are sent to the storage system as a file and an address in the storage system for the file is provided to the database system using the first connection (Column 7, lines 9-16).

Regarding claim 23, **Eldreth** further teaches a system comprising:

A) wherein the file also has associated therewith a flag to indicate status of the file (Column 5, lines 22-44).

Regarding claim 24, **Eldreth** further teaches a system comprising:

A) wherein the flag indicates at least one of whether the file is being written, is ready to be read, is being read, and is available to be deleted (Column 5, lines 22-44).

Regarding claim 25, **Eldreth** further teaches a system comprising:

A) a return path selector coupled to the database system for selecting a return path over which to return results from queries made to the database system, the return path selector selecting from among at least the first connection or the storage system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 26, **Eldreth** further teaches a system comprising:

A) wherein the results from the query have a size, and the return path selector chooses a return path based on the size of the results (Column 3, lines 7-15).

Regarding claim 27, **Eldreth** further teaches a system comprising:

A) wherein when the return path is chosen to be the storage system, the results are sent to the storage system as a file and an address in the storage system for the file is provided to the application system using the first connection (Column 7, lines 9-16).

Regarding claim 28, **Eldreth** teaches a system comprising:

A) a database system (**Eldreth**, Column 2, lines 14-28, Figure 1);
B) an application system for providing queries to the database system coupled to the application system via a first connection over the network (**Eldreth**, Column 1, lines 32-38);
C) the application system including a database access system, and the database system including a gateway system (**Eldreth**, Column 3, lines 7-15, Figure 2);

D) a storage system coupled to each of the application system and the database system, the storage system including a shared volume that can be accessed by the application system via a path between the storage system and the application system and by the database system via a path between the storage system and the database system, the shared volume storing results from queries made to the database system (Eldreth, Column 3, lines 7-15, Figure 2); and

E) the gateway system including a return path selector for selecting a return path over which to return the results from queries made to the database system, the return path selector selecting from among at least the first connection over the network or the path between the application system and the storage system (Eldreth, Column 3, lines 25-37, Figures 2-3).

The examiner notes that **Eldreth** teaches “**a database system**” as “host system 110 may include multiple computers 111-113 and database systems 114-115” (Column 2, lines 16-18). The examiner further notes that **Eldreth** teaches “**an application system for providing queries to the database system coupled to the application system via a first connection over a network**” as “Communicating with the database system may include sending a database query and receiving a reply to the query” (Column 1, lines 32-34). The examiner further notes that Figure 2 of **Eldreth** clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Regarding claim 29, **Eldreth** further teaches a system comprising:

A) wherein the gateway system includes a return path selector for selecting a return path over which to return results from queries made to the database system, the return path selector selecting from among at least the first connection or the storage system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 30, **Eldreth** teaches a system comprising:

- A) a database system (Eldreth, Column 2, lines 14-28, Figure 1);
- B) an application system for providing queries to the database system coupled to the application system via a-first connection over a network (Eldreth, Column 1, lines 32-38);
- C) the application system including a database access system; and
- D) the database system including a gateway system (Eldreth, Column 3, lines 7-15, Figure 2);
- E) a storage system coupled to each of the application system and the database system, the storage system including a volume that can be accessed by the application system via a path between the storage system and the application system and by the database system via a path between the storage system and the database system, (Eldreth, Column 3, lines 7-15, Figure 2); and
- F) the database access system including a request path selector for selecting a request path over which to send data for queries made to the database system, the request path selector selecting from among at least the first connection over a network or the path

between the application system and the storage system (Eldreth, Column 3, lines 25-37, Figures 2-3).

The examiner notes that **Eldreth** teaches “**a database system**” as “host system 110 may include multiple computers 111-113 and database systems 114-115” (Column 2, lines 16-18). The examiner further notes that **Eldreth** teaches “**an application system for providing queries to the database system coupled to the application system via a first connection over a network**” as “Communicating with the database system may include sending a database query and receiving a reply to the query” (Column 1, lines 32-34). The examiner further notes that Figure 2 of **Eldreth** clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Regarding claim 31, **Eldreth** teaches a system comprising:

- A) a database system (Eldreth, Column 2, lines 14-28, Figure 1);
- B) an application system for providing queries to the database system (Eldreth, Column 1, lines 32-38, Figure 2);
- C) the database system coupled to the application system via a communications network connection (Eldreth, Column 1, lines 32-38, Figure 2); and
- D) a switch coupled to each of the database system and the application system (Eldreth, Column 3, lines 25-37, Figures 2-3);
- E) a storage system coupled to the switch, the storage system including a shared volume that can be accessed by the application system via a path between the storage

system and the application system via the switch and by the database system via a path between the storage system and the database system via the switch, the shared volume storing results from queries made to the database system; (Eldreth, Column 3, lines 25-37, Figures 2-3); and

F) a return path selector coupled to the database system for selecting a return path over which to return the results from queries made to the database system, the return path selector selecting from among at least the communications network connection and the path between the storage system and the application system via the switch (Eldreth, Column 3, lines 25-37, Figures 2-3);

The examiner notes that **Eldreth** teaches “**a database system**” as “host system 110 may include multiple computers 111-113 and database systems 114-115” (Column 2, lines 16-18). The examiner further notes that **Eldreth** teaches “**an application system for providing queries to the database system**” as “Communicating with the database system may include sending a database query and receiving a reply to the query” (Column 1, lines 32-34). The examiner further notes that Figure 2 of **Eldreth** clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Regarding claim 32, **Eldreth** further teaches a system comprising:

A) a request path selector coupled to the application system for selecting a request path over which to send query data for requests made to the database system, the

request path selector selecting from among at least the communications network connection or the switch (Column 3, lines 25-37, Figures 2-3).

Regarding claim 33, **Eldreth** teaches a system comprising:

- A) a query provider which provides queries to a database system connected to the query provider by a first connection over a network (**Eldreth**, Column 1, lines 32-38, Figure 2);
- B) the query provider and the database system being each coupled to a storage system via different paths (**Eldreth**, Column 3, lines 7-15, Figure 2);
- C) a method of returning results to the query provider comprising storing results from queries made to the database system in the storage system at an address which can be accessed separately by the query provider and by the database system (**Eldreth**, Column 3, lines 25-37, Figures 2-3); and
- D) sending the address of the results via the first connection over the network to the query provider (**Eldreth**, Column 7, lines 9-16).

The examiner notes that **Eldreth** teaches “**a query provider which provides queries to a database system connected to the query provider by a first connection over a network**” as “Communicating with the database system may include sending a database query and receiving a reply to the query” (Column 1, lines 32-34). The examiner further notes that Figure 2 of **Eldreth** clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Regarding claim 37, **Eldreth** further teaches a system comprising:

- A) storing the query data in the storage system at a location (Column 7, lines 9-16);
and
- B) sending information about the location over the first connection to the database system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 38, **Eldreth** further teaches a system comprising:

- A) retrieving the query data from the storage system (Column 3, lines 25-37, Figures 2-3); and
- B) using the query data to obtain the results (Column 3, lines 25-37, Figures 2-3).

Regarding claim 39, **Eldreth** further teaches a system comprising:

- A) providing a flag associated with the results to indicate whether the results are ready to be read by the query provider (Column 5, lines 22-44).

Regarding claim 40, **Eldreth** further teaches a system comprising:

- A) providing a flag associated with the results to indicate whether the results have been read by the query provider (Column 5, lines 22-44).

Regarding claim 41, **Eldreth** teaches a data storage system comprising:

- A) receiving from the database system over the network, results of execution of queries, the queries being sent to the database system by the application system (Eldreth, Column 1, lines 32-38, Figure 2);
- B) storing the results of executions of queries in a storage area that the database system and the application system can access separately via separate connections to the storage area (Eldreth, Column 7, lines 1-8); and
- C) sending, in response to a request from the application system, the results of execution of queries to the application system over the network (Eldreth, Column 3, lines 25-37, Figures 2-3).

The examiner notes that **Eldreth** teaches “**receiving from the database system over the network, results of execution of queries, the queries being sent to the database system by the application system**” as “**Communicating with the database system may include sending a database query and receiving a reply to the query**” (Column 1, lines 32-34). The examiner further notes that Figure 2 of **Eldreth** clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Regarding claim 42, **Eldreth** teaches a data storage system comprising:

- A) sending a query from the application system to the database system by using the first connection over a network (Eldreth, Column 1, lines 32-38, Figure 2);

B) storing a result of execution of the query in a shared volume of the data storage system that can be accessed by the application system and by the database system

(Eldreth, Column 3, lines 25-37, Figures 2-3); and

C) obtaining at the application system, the result of execution of the query from the storage system via the second connection without going through the first connection over the network (Eldreth, Column 3, lines 25-37, Figures 2-3).

The examiner notes that **Eldreth** teaches “sending a query from the application system to the database system by using the first connection over a network” as “Communicating with the database system may include sending a database query and receiving a reply to the query” (Column 1, lines 32-34). The examiner further notes that Figure 2 of **Eldreth** clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Eldreth** (U.S. Patent 6,292,800) as applied to claims 1-8, 16-21, 23-33, and 37-42 above and in view of **Luke et al.** (U.S. Patent 6,985,956).

9. Regarding claim 9, **Eldreth** does not explicitly teach a system comprising:
A) wherein after the results are used by the application system, the application system designates the results as used, thereby enabling them to be erased from the storage system at a later time.

Luke, however, teaches “**wherein after the results are used by the application system, the application system designates the results as used, thereby enabling them to be erased from the storage system at a later time**” as “cache a file, retrieve a cached file (on board or off), and bypass a cached file (On board or off)” (Column 9, lines 6-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Luke's** would have allowed **Eldreth's** to provide a methods to simplify management of storage in digital networks, and enable flexible deployment of NAS, SAN, and other storage systems, as noted by **Luke** (Column 3, lines 15-18).

Regarding claim 14, **Eldreth** does not explicitly teach a system comprising:

A) wherein after the query data is used by the database system, the database system designates the query data as used, thereby enabling them to be erased from the storage system at a later time.

Luke, however, teaches “**wherein after the query data is used by the database system, the database system designates the query data as used, thereby enabling them to be erased from the storage system at a later time**” as “cache a file, retrieve a cached file (on board or off), and bypass a cached file (On board or off)” (Column 9, lines 6-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Luke's** would have allowed **Eldreth's** to provide a methods to simplify management of storage in digital networks, and enable flexible deployment of NAS, SAN, and other storage systems, as noted by **Luke** (Column 3, lines 15-18).

10. Claims 11-13, 22, 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Eldreth** (U.S. Patent 6,292,800) as applied to claims 1-8, 15-21, 23-33, and 37-42 above and in view of **Dar et al.** (U.S. PGPUB 2003/0154236).

11. Regarding claim 11, **Eldreth** does not explicitly teach a system comprising:
A) wherein the file has associated therewith a key and the key is used to control access to the results.

Dar, however, teaches “**wherein the file has associated therewith a key and the key is used to control access to the results**” as “communication between the agents and dBSwitch may be encrypted, in order to ensure that the agents only performs commands on behalf of the dBSwitch and that information sent from the agents can only be used by the dBSwitch” (Paragraph 64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Dar’s** would have allowed **Eldreth’s** to provide a method to provide for high utilization, high availability, scalability on demand, simplified management and security, in a shared and heterogeneous application environment, as noted by **Dar** (Paragraph 22).

Regarding claim 12, **Eldreth** further teaches a system comprising:

A) wherein the file also has associated therewith a flag to indicate status of the file (Column 5, lines 22-44).

Regarding claim 13, **Eldreth** further teaches a system comprising:

A) wherein the flag indicates at least one of whether the file is being written, is ready to be read, is being read, and is available to be deleted (Column 5, lines 22-44).

Regarding claim 22, **Eldreth** does not explicitly teach a system comprising:

A) wherein the file has associated therewith a key and the key is used to control access to the results.

Dar, however, teaches “**wherein the file has associated therewith a key and the key is used to control access to the results**” as “communication between the agents and dBSwitch may be encrypted, in order to ensure that the agents only performs commands on behalf of the dBSwitch and that information sent from the agents can only be used by the dBSwitch” (Paragraph 64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Dar’s** would have allowed **Eldreth’s** to provide a method to provide for high utilization, high availability, scalability on demand, simplified management and security, in a shared and heterogeneous application environment, as noted by **Dar** (Paragraph 22).

Regarding claim 34, **Eldreth** does not explicitly teach a system comprising:
A) generating a key for the results to identify their location; and
B) sending the key over the network to the query provider.

Dar, however, teaches “**generating a key for the results to identify their location**” and “**sending the key over the network to the query provider**” as “communication between the agents and dBSwitch may be encrypted, in order to ensure that the agents only performs commands on behalf of the dBSwitch and that information sent from the agents can only be used by the dBSwitch” (Paragraph 64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Dar’s** would have allowed **Eldreth’s** to provide a method to provide for high utilization,

high availability, scalability on demand, simplified management and security, in a shared and heterogeneous application environment, as noted by **Dar** (Paragraph 22).

Regarding claim 35, **Eldreth** further teaches a system comprising:

A) a step of, at the query provider, retrieving the results from the storage system (Column 3, lines 25-37, Figures 2-3).

Regarding claim 36, **Eldreth** does not explicitly teach a system comprising:

A) encrypting at least one of the key and the results.

Dar, however, teaches “**encrypting at least one of the key and the results**” as “communication between the agents and dBSwitch may be encrypted, in order to ensure that the agents only performs commands on behalf of the dBSwitch and that information sent from the agents can only be used by the dBSwitch” (Paragraph 64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Dar**’s would have allowed **Eldreth**’s to provide a method to provide for high utilization, high availability, scalability on demand, simplified management and security, in a shared and heterogeneous application environment, as noted by **Dar** (Paragraph 22).

12. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Eldreth** (U.S. Patent 6,292,800) as applied to claims 1-8, 16-21, 23-33, and 37-42 above and in view of **Garimella et al.** (U.S. PGPUB 2005/0015415).

13. Regarding claim 43, **Eldreth** does not explicitly teach a system comprising:

- A) wherein the first connection is a Local Area Network; and
- B) wherein the second connection is a Storage Area Network.

Garimella, however, teaches “**wherein the first connection is a Local Area Network**” as “**LAN**” (Figure 1) and “**wherein the second connection is a Storage Area Network**” as “**SAN**” (Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because teaching **Garimella's** would have allowed **Eldreth's** to provide a method to improve coordination of volume access operations to avoid conflicts and corruption problems when multiple devices have access to the volume over a network, as noted by **Garimella** (Paragraph 7).

Response to Arguments

14. Applicant's arguments filed on 06/29/2006 have been fully considered but they are not persuasive.

Applicant goes on to argue on page 12, that “**Applicant respectfully submits that independent claim 1 is novel and patentable over Eldreth because, for instance, Eldreth does not teach or suggest a storage system...over the network**”. However, the examiner wishes to point applicant to the rejection of claim 1 earlier in the instant office action. The examiner further wishes to state that Figure 2 of **Eldreth** which clearly shows an application system having multiple network paths 205-

209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Applicant goes on to argue on pages 12-13, that “**In Eldreth, there is no network connection between an application system and a database system, and a path between the application system and a storage system, such that the return path selector can select from among at least the first connection over the network or the path between the application system and the storage system without going through the first connection over the network**”. However, the examiner wishes to point to Figure 2 of **Eldreth** which clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Applicant goes on to argue on page 13, that “**Applicant respectfully submits that independent claim 17 is novel and patentable over Eldreth because, for instance, Eldreth does not teach or suggest a storage system...and the storage system**”. However, the examiner wishes to point applicant to the rejection of claim 17 earlier in the instant office action. The examiner further wishes to state that Figure 2 of **Eldreth** which clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Applicant goes on to argue on page 13, that “**Applicant respectfully submits that independent claim 28 is novel and patentable over Eldreth because, for instance, Eldreth does not teach or suggest a storage system...and the storage**

system”. However, the examiner wishes to point applicant to the rejection of claim 28 earlier in the instant office action. The examiner further wishes to state that Figure 2 of **Eldreth** which clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Applicant goes on to argue on page 14, that **“Applicant respectfully submits that independent claim 30 is novel and patentable over Eldreth because, for instance, Eldreth does not teach or suggest a storage system...and the storage system”**. However, the examiner wishes to point applicant to the rejection of claim 30 earlier in the instant office action. The examiner further wishes to state that Figure 2 of **Eldreth** which clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Applicant goes on to argue on pages 14-15, that **“Applicant respectfully submits that independent claim 31 is novel and patentable over Eldreth because, for instance, Eldreth does not teach or suggest a storage system...via the switch”**. However, the examiner wishes to point applicant to the rejection of claim 31 earlier in the instant office action. The examiner further wishes to state that Figure 2 of **Eldreth** which clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Applicant goes on to argue on page 15, that **“Applicant respectfully submits that independent claim 33 is novel and patentable over Eldreth because, for instance, Eldreth does not teach or suggest a query provider...to the query provider”**. However, the examiner wishes to point applicant to the rejection of claim 33 earlier in the instant office action. The examiner further wishes to state that Figure 2 of **Eldreth** which clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Applicant goes on to argue on pages 15-16, that **“Applicant respectfully submits that independent claim 41 is novel and patentable over Eldreth because, for instance, Eldreth does not teach or suggest storing the results...over the network”**. However, the examiner wishes to point applicant to the rejection of claim 41 earlier in the instant office action. The examiner further wishes to state that Figure 2 of **Eldreth** which clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Applicant goes on to argue on page 16, that **“Applicant respectfully submits that independent claim 42 is novel and patentable over Eldreth because, for instance, Eldreth does not teach or suggest storing the result...over the network”**. However, the examiner wishes to point applicant to the rejection of claim 42 earlier in the instant office action. The examiner further wishes to state that Figure 2 of **Eldreth** which clearly shows an application system having multiple network paths 205-

209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Applicant goes on to argue on page 17, that **“Luke et al. does not cure the deficiencies of Eldreth, in that Luke et al. also fails to teach or suggest the features as recited in claim 1 from which claims 9 and 14 depend, namely, a storage system coupled...over the network”**. However, the examiner wishes to point applicant to the rejection of claim 1 earlier in the instant office action. The examiner further wishes to state that Figure 2 of **Eldreth** which clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Applicant goes on to argue on page 17, that **“Dar et al. does not cure the deficiencies of Eldreth, in that Dar et al. also fails to teach or suggest the features as recited in claim 1 from which claims 11-13 depend, the features of claim 17 from which claim 22 depends, and the fetures of claim 33 from which claims 34-36 depend, as described above”**. However, the examiner wishes to point applicant to the rejection of claims 1, 17, and 33 earlier in the instant office action. The examiner further wishes to state that Figure 2 of **Eldreth** which clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Applicant goes on to argue on pages 17-18, that **“Girimella et al. does not cure the deficiencies of Eldreth, in that Luke et al. also fails to teach or suggest the features as recited in claim 42 from which claim 43 depends, namely, storing a result...over the**

network ". However, the examiner wishes to point applicant to the rejection of claim 42 earlier in the instant office action. The examiner further wishes to state that Figure 2 of Eldreth which clearly shows an application system having multiple network paths 205-209 to connect to multiple shared database storage systems 231-234 via new network paths 221-231.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,237,036 issued to **Ueno et al.** on 22 May 2001. The subject matter disclosed therein is pertinent to that of claims 1-28(e.g., methods to generate and perform functions on access control lists)

U.S. PGPUB 2002/0083120 issued to **Soltis** on 27 June 2002. The subject matter disclosed therein is pertinent to that of claims 1-43 (e.g., methods to use and operate storage networks).

U.S. PGPUB 2002/013359 issued to **Monday** on 19 September 2002. The subject matter disclosed therein is pertinent to that of claims 1-43 (e.g., methods to use and operate storage networks).

U.S. Patent (5,950,203) issued to **Stakuis** on 07 September 1999. The subject matter disclosed therein is pertinent to that of claims 1-43 (e.g., methods to use and operate storage networks).

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mahesh Dwivedi whose telephone number is (571) 272-2731. The examiner can normally be reached on Monday to Friday 8:20 am – 4:40 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached (571) 272-3642. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mahesh Dwivedi

Patent Examiner

Art Unit 2168



July 20, 2006



Leslie Wong

Primary Examiner